IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An implantable cardiac stimulation device for stimulating a heart, the device comprising:

a physiologic sensor that is capable of sensing a physiologic parameter and generating corresponding signals;

one or more pulse generators that are capable of generating cardiac pacing pulses;

circuitry connected to the sensor that is operative to detect one of a ~~potential sleep apnea~~ resting condition and a sleep condition based on the signals and that is responsive to detection of one of a ~~potential sleep apnea~~ resting condition and a sleep condition to control the one or more pulse generators to pace the heart at a sleep apnea prevention rate.

2. (Original) An implantable cardiac stimulation device according to Claim 1 further comprising:

a controller coupled to the one or more pulse generators and to the physiologic sensor, the controller comprising an executable control logic that distinguishes between a sleeping condition and a waking condition of a patient, and controls the one or more pulse generators to pace at a sleep apnea prevention rate in response to detection of a sleeping condition.

3. (Original) An implantable cardiac stimulation device according to Claim 1 further comprising:

one or more sensors that are capable of electrical coupling to the cardiac tissue;

a controller coupled to the one or more pulse generators, the one or more sensors, and the physiologic sensor, the controller including an executable control logic that controls the one or more pulse generators to pace at a rate selected from among at least a sleeping rate, a resting rate, and an

exercising rate, the executable control logic being capable of distinguishing between a sleeping condition and a waking condition of a patient, and controlling the one or more pulse generators to pace at a rate greater than the resting rate in response to detection of a sleeping condition.

4. (Original) An implantable cardiac stimulation device according to Claim 1 further comprising:

a physiologic sensor that measures physical motion for derivation of an activity parameter and an activity variance parameter, and activates sleep apnea preventive pacing when the activity and activity variance signals indicate a sleeping condition.

5. (Original) An implantable cardiac stimulation device according to Claim 1 further comprising:

a physiologic sensor that measures QT interval and activates sleep apnea preventive pacing when the QT interval exceeds a threshold value.

6. (Original) An implantable cardiac stimulation device according to Claim 1 further comprising:

a physiologic sensor that measures cardiac conductivity and activates sleep apnea preventive pacing when cardiac conductivity is depressed during sleep.

7. (Original) An implantable cardiac stimulation device according to Claim 1 further comprising:

a physiologic sensor that measures cardiac contractility and activates sleep apnea preventive pacing when cardiac contractility is reduced during sleep.

8. (Original) An implantable cardiac stimulation device according to Claim 1 further comprising:

    a physiologic sensor that measures evoked response amplitude and evoked response duration and activates sleep apnea preventive pacing when evoked response amplitude is decreased and evoked response duration is increased during sleep.

9. (Original) An implantable cardiac stimulation device according to Claim 1 further comprising:

    a physiologic sensor that measures evoked response amplitude and evoked response duration and activates sleep apnea preventive pacing when evoked response amplitude is decreased and evoked response duration is increased during sleep; and

    a physiologic sensor that measures paced depolarization integral (PDI) and activates sleep apnea preventive pacing when PDI is depressed during sleep.

10. (Original) An implantable cardiac stimulation device according to Claim 1 further comprising:

    a physiologic sensor that measures stroke volume and activates sleep apnea preventive pacing when stroke volume increases when a patient is in a supine position.

11. (Original) An implantable cardiac stimulation device according to Claim 1 further comprising:

    a physiologic sensor that measures paced depolarization integral (PDI) and activates sleep apnea preventive pacing when PDI is depressed during sleep.

12. (Original) An implantable cardiac stimulation device according to Claim 1 further comprising:

 a physiologic sensor that measures blood oxygen concentration and activates sleep apnea preventive pacing when blood oxygen concentration is depressed during sleep.

13. (Original) An implantable cardiac stimulation device according to Claim 1 further comprising:

 a physiologic sensor that measures blood carbon dioxide concentration and activates sleep apnea preventive pacing when blood carbon dioxide concentration is elevated during sleep.

14. (Currently Amended) An implantable cardiac stimulation device comprising:

means for detecting a potential sleep apnea condition;

means for generating cardiac pacing pulses; ~~and~~

<u>means for detecting one of a resting condition and a sleep condition; and</u>

means for controlling the means for generating cardiac pacing pulses to pace at a sleep apnea prevention rate in response to detection of <u>one of</u> a ~~potential sleep apnea~~ <u>resting condition and a sleep</u> condition.

15. (Original) An implantable cardiac stimulation device according to Claim 14 wherein the means for detecting a potential sleep apnea condition comprises means for detecting a sleep condition.

16. (Original) An implantable cardiac stimulation device according to Claim 14 further comprising:

 means for distinguishing between a sleeping condition and a waking condition of a patient.

17. (Original) An implantable cardiac stimulation device according to Claim 14 wherein the means for detecting comprises at least one of:

a physiologic sensor that measures physical motion for derivation of an activity parameter and an activity variance parameter, and activates sleep apnea preventive pacing when the activity and activity variance signals are reduced during sleep;

a physiologic sensor that measures QT interval and activates sleep apnea preventive pacing when QT interval is prolonged during sleep;

a physiologic sensor that measures cardiac conductivity and activates sleep apnea preventive pacing when cardiac conductivity is depressed during sleep;

a physiologic sensor that measures cardiac contractility and activates sleep apnea preventive pacing when cardiac contractility is reduced during sleep;

a physiologic sensor that measures evoked response integral amplitude and evoked response duration and activates sleep apnea preventive pacing when evoked response integral amplitude is decreased and evoked response duration is increased during sleep;

a physiologic sensor that measures stroke volume and activates sleep apnea preventive pacing when stroke volume increases when a patient is in a supine position;

a physiologic sensor that measures paced depolarization integral (PDI) and activates sleep apnea preventive pacing when PDI is depressed during sleep; and

a physiologic sensor that measures blood oxygen concentration and activates sleep apnea preventive pacing when blood oxygen level is depressed during sleep.

18. (Currently Amended) A method of operating an implantable cardiac stimulation device comprising:

> detecting one of a ~~potential sleep apnea~~ resting condition and a sleep condition; and

> generating cardiac pacing pulses at a sleep apnea prevention rate in response to detection of one of the resting condition and the sleep condition ~~the potential sleep apnea condition~~.

19. (Original) The method of claim 18, wherein detection a potential sleep apnea condition comprises detecting a sleeping state of a patient.

20. (Original) A method according to Claim 18 further comprising:
distinguishing between a sleeping condition and a waking condition of a patient;
timing generation of the cardiac pacing pulses; and
controlling the timed cardiac pacing pulses at a sleep apnea prevention rate.

21. (Original) A method according to Claim 18 further comprising:
distinguishing between a sleeping condition and a waking condition of a patient; and
timing cardiac pacing pulse generation to pace at a rate greater than the resting rate in response to detection of a sleeping condition.